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Application No. 2001/0594

Date of Filing 27 June 2001

Applicant CLIP INTERNET SYSTEMS LIMITED, an Irish company, of 3-4 Merrion Place, Dublin 2, Ireland.

Dated this ²⁴ 4th day of November 2003.



Corrigan

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Controller of Patents, Designs and Trademarks.

REQUEST FOR THE GRANT OF A PATENT

PATENTS ACT, 1992

The Applicant(s) named herein hereby request(s)

X the grant of a patent under Part II of the Act

_____ the grant of a short-term patent under Part III of the Act
on the basis of the information furnished hereunder.

1. Applicant(s)

Name CLIP INTERNET SYSTEMS LIMITED

Address 3-4 Merrion Place
Dublin 2
Ireland

Description/Nationality

An Irish company

2. Title of Invention

"A transaction processing method and system"

3. Declaration of Priority on basis of previously filed application(s) for same invention (Sections 25 & 26)

Previous filing date

Country in or for
which filed

Filing No.

4. Identification of Inventor(s)

Name(s) of person(s) believed
by Applicants(s) to be the inventor(s)

KAVANAGH, Stephen
an Irish citizen of 11 Cunningham Drive, Dalkey, County Dublin, Ireland

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GUILFOYLE, Kieron
an Irish citizen of Rockfield, Church Road, Killiney, County Dublin, Ireland

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an Irish citizen of No. 9. Seabury Lawns, Malahide, County Dublin, Ireland

5. Statement of right to be granted a patent (Section 17(2) (b))

The Applicant derives the rights to the Invention by virtue of a Deed of Assignment dated May 24, 2001

6. Items accompanying this Request – tick as appropriate

- (i) ☒ prescribed filing fee (£100.00)
- (ii) ☒ specification containing a description and claims
☐ specification containing a description only
☒ Drawings referred to in description or claims
- (iii) ☐ An abstract
- (iv) ☐ Copy of previous application (s) whose priority is claimed
- (v) ☐ Translation of previous application whose priority is claimed
- (vi) ☒ Authorisation of Agent (this may be given at 8 below if this Request is signed by the Applicant (s))

7. Divisional Application (s)

The following information is applicable to the present application which is made under Section 24 –

Earlier Application No:

Filing Date:

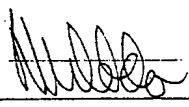
8. Agent

The following is authorised to act as agent in all proceedings connected with the obtaining of a patent to which this request relates and in relation to any patent granted -

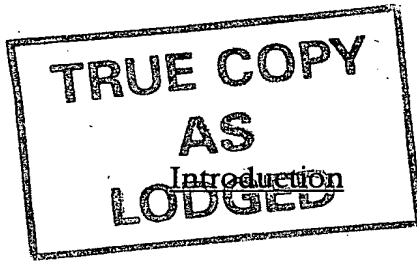
<u>Name</u>	<u>Address</u>
John A. O'Brien & Associates	The address recorded for the time being in the Register of Patent Agents, and currently Third Floor, Duncairn House, 14 Carysfort Avenue, Blackrock, Co. Dublin, Ireland.

9. Address for Service (if different from that at 8)

As above

Signed  JOHN A. O'BRIEN & ASSOCIATES

Date June 27, 2001



"A transaction processing method and system"

5 The invention relates to electronic transaction processing.

At present, an electronic transaction process for the purchase of goods or services includes :

- 10
- the customer making contact with the merchant to initiate the transaction,
 - the merchant issuing an invoice,
 - the customer sending a payment instruction to the merchant with payment card details,
 - the merchant making an authorisation request via an acquiring institution,

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 - the merchant confirming the transaction to the customer if the authorisation is positive, and
 - the merchant shipping the goods or providing the service.

20 It is an object of the invention to provide an improved method and system for the use of payment cards.

Statements of Invention

25 According to the invention, there is provided a transaction processing method comprising the steps of a customer system transmitting a purchase request and payment instructions to a merchant system, and the merchant system processing the request with an acquirer system and the customer system, characterised in that the method comprises the further steps of:

a customer issuing system being notified of the proposed transaction, and

5 the issuing system transmitting an authorisation to allow the proposed transaction only if conditions are met.

In one embodiment, the customer notifies the issuing system.

10 In one embodiment, the acquirer system transmits an authorisation request to the issuing system, and relays an authorisation response from the issuing system to the merchant system.

15 In another embodiment, at least some of the authorisation conditions are dynamically transmitted to the issuing system by the customer when notifying the issuing system.

In a further embodiment, an authorisation condition is a transaction value limit.

20 In one embodiment, an authorisation condition is an indication of a particular merchant or group of merchants.

In another embodiment, an authorisation condition is a time limit for the proposed transaction to take place.

25 According to another aspect, the invention provides an issuing system comprising means for performing issuing system steps in a method as described above.

According to another aspect, the invention provides a merchant system comprising means for performing merchant system steps in a method as described above.

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In another aspect, the invention provides a customer system comprising means for performing customer system steps in a method as described above.

Detailed Description of the Invention

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The invention will be more clearly understood from the following description of some embodiments thereof, given by way of example only with reference to the accompanying drawings in which:

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Fig. 1 is a signal diagram illustrating communication between systems for a transaction; and

Fig. 2 is a signal diagram illustrating the communications at the issuer institution

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Referring to Fig. 1, a transaction using the method of the invention is illustrated. In summary, the following are the steps of the method.

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- A customer notifying it's payment card issuer of an intended transaction prior to making the transaction (Fig 1.1).
- The payment card issuer confirming the notification to the customer. (Fig 1.2).
- The customer notifying a purchase request and payment instructions to a merchant (Fig 1.3).
- 25 • The merchant system processing the transaction request with an acquiring institution (Fig 1.4).
- The acquiring institution transmitting an authorisation request for the transaction to the issuing institution (Fig 1.5 & 1.6).

- The issuing institution responding to the authorisation request (Fig 1.7 & 1.8).
- The acquiring institution relaying the response to the merchant (Fig 1.9).
- The merchant completing the transaction with the customer (Fig 1.10).

5 In this method, the cardholder notifies the validation system of the proposed transaction. The validation system is at the issuing institution, which issues the payment card to the customer. The acquirer bank does not proceed with the transaction until a clearance is provided by the issuer's validation system. The validation system is able to decline the transaction if the customer does not notify the
10 issuing institution of the proposed transaction. The validation system is able to decline the transaction if it receives different transaction data from the acquiring institution in respect of a previously notified transaction.

The cardholder makes contact with the issuing institution responsible for the
15 payment card. In one instance the cardholder can make this contact using the Internet or other home banking system. The issuing institution can validate the identity of the cardholder using either a password or a challenge/response mechanism.

20 In more detail, the cardholder informs the issuing institution that a payment transaction is going to take place in the future (Fig 1.1). The cardholder supplies some specific details and parameters relating to the proposed transaction. This can include items such as transaction amount merchant type, merchant name, type of transaction, time of transaction and the duration of the validity of this notification.

25 The issuing institution confirms the details and parameters of the proposed transaction with the customer (Fig 1.2). The issuing institution stores this information in the validation system.

The customer contacts the merchant for the purpose of conducting business. The customer supplies his/her payment card details to the merchant for the purchase of goods or services. (Fig 1.3)

- 5 The merchant supplies the payment card details with additional transaction information (e.g. transaction amount and transaction type) to the acquiring institution for verification prior to supplying the goods and services. (Fig 1.4)

- 10 The acquiring institution sends the transaction information to the issuing institution for validation (Fig 1.5). This transaction information may travel through an independent payment network (Fig 1.6). The acquirer adds additional relevant information to the transaction.

- 15 The issuing institution validates the transaction. This validation process can use the details of a previously notified transaction from the cardholder. At the issuing institution's discretion, the transaction can be accepted or denied.

- 20 The issuing institution responds to the transaction request (Fig1.7). This response may travel through an independent payment network (Fig 1.8).

The acquiring institution relays the transaction response to the merchant (Fig 1.9).

- 25 On receipt of an accepted response from the acquiring institution, the merchant and the cardholder completes the transaction.

Referring to Fig. 2, a "CLIP" system performs the issuing bank validation, and the following are the signals.

- 1 – The customer informs the issuing bank of a proposed transaction through the relevant banking interface e.g. Internet Banking, Telephone Banking, Mobile Banking etc. This notification will identify key parameters of the transaction e.g. Time, amount, Merchant etc.
- 5 2 – The Customer interface informs the CLIP system within the issuing Bank of the proposed transaction detail where it is stored pending a matching transaction arriving from the payment network. The issuing bank will set parameters as to how this matching occurs.
- 10 3 – The CLIP system confirms the proposed transaction detail with the issuing bank's Banking interface.
- 15 4 – The issuing bank's Banking Interface will notify the customer that it is in receipt of the proposed transaction detail.
- 5 – A transaction request is received at the issuing bank's payment authorisation system.
- 20 6 – The issuing bank directs the transaction detail to the CLIP system to validate that the details match the transaction details as confirmed by the customer in step 1. The issuing bank through pre-set parameters can accept or reject the transaction.
- 25 7 – The CLIP system sends a transaction accept/reject response to the issuing bank's payment authorisation system.
- 8 – The issuer's payment authorisation system relays the response in step 7 to the card payment network.

- An advantageous feature of this invention is that the cardholder notifies the issuing institution in advance of using their payment card for a transaction. This allows the issuing institution to deny all transactions as a rule, authorising only those transactions that it has been notified about in advance by the cardholder. This
- 5 ensures that the cardholder has control over the usage of the payment card. This control can be finite, down to a particular merchant for a specific amount at a fixed date and time. For example, the cardholder can notify his/her bank about a transaction at an Internet Bookshop for a particular amount, due to occur in the next few hours. The issuing institution will store this notification on the validation system.
- 10 When the Internet Bookshop processes the payment card transaction, the issuing institution will receive a request for authorisation. The issuing institution can compare this transaction request with those notifications stored on the validation system. If the notification matches with one stored on the validation system the issuing institution can approve the transaction. The issuing institution may perform
- 15 other validation tests including checking available funds. The original notification is now discarded and cannot be re-used. If there is no match for the transaction request on the validation system, the issuing institution can decline the transaction. This prevents duplication authorisation requests or unauthorised use of the payment card.
- 20 The invention is not limited to the embodiments described but may be varied in construction and detail.

Claims

1. A transaction processing method comprising the steps of a customer system transmitting a purchase request and payment instructions to a merchant system, and the merchant system processing the request with an acquirer system and the customer system, characterised in that the method comprises the further steps of:

a customer issuing system being notified of the proposed transaction, and

the issuing system transmitting an authorisation to allow the proposed transaction only if conditions are met.
2. A method as claimed in claim 1, wherein the customer notifies the issuing system.
3. A method as claimed in claims 1 or 2, wherein the acquirer system transmits an authorisation request to the issuing system, and relays an authorisation response from the issuing system to the merchant system.
4. A method as claimed in any preceding claim, wherein at least some of the authorisation conditions are dynamically transmitted to the issuing system by the customer when notifying the issuing system.
5. A method as claimed in any preceding claim, wherein an authorisation condition is a transaction value limit.
6. A method as claimed in any preceding claim, wherein an authorisation condition is an indication of a particular merchant or group of merchants.

7. A method as claimed in any preceding claim, wherein an authorisation condition is a time limit for the proposed transaction to take place.
8. A transaction processing method substantially as described with reference to the drawings.
9. An issuing system comprising means for performing issuing system steps in a method as claimed in any preceding claim.
10. A merchant system comprising means for performing merchant system steps in a method as claimed in any of claims 1 to 8.
11. A customer system comprising means for performing customer system steps in a method as claimed in any of claims 1 to 8.

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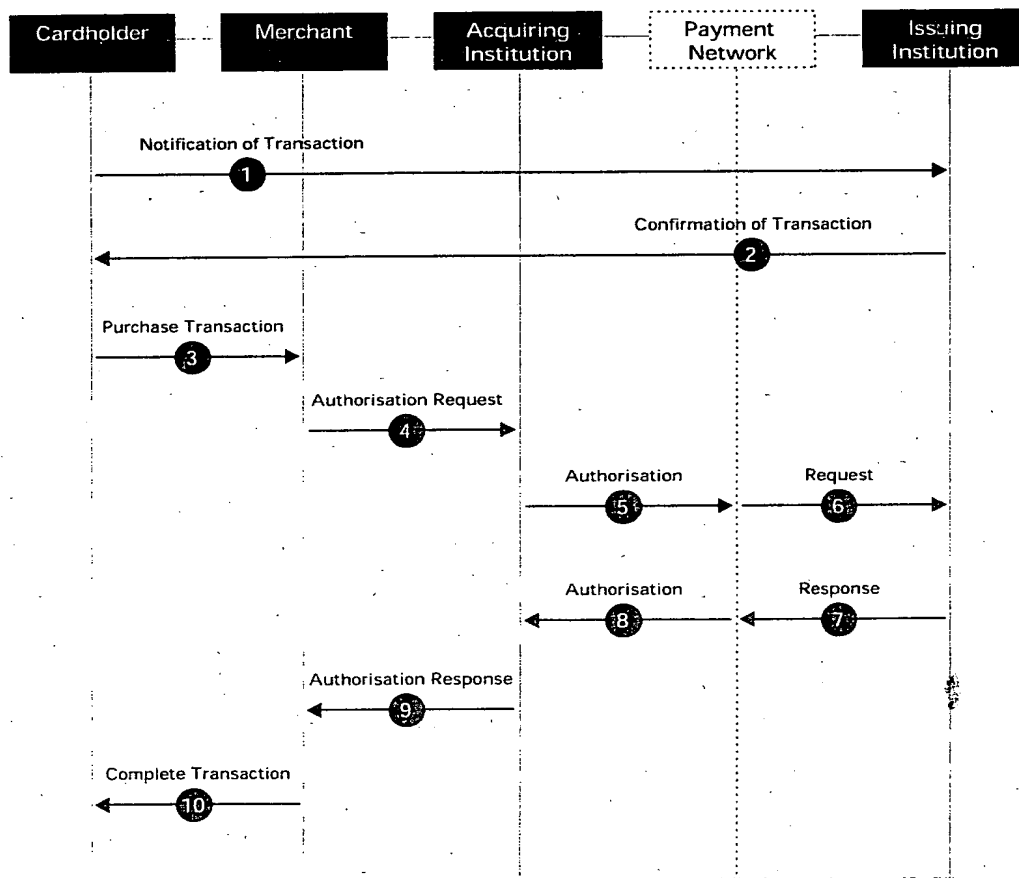
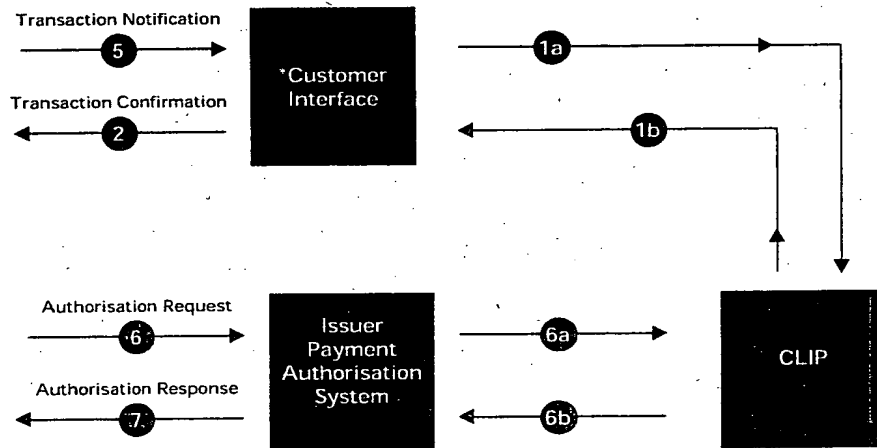


Fig. 1

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* Customer Interface includes (but not limited to)

- * Internet Banking
- * Telephone Banking (voice response)
- * Mobile Phone (WAP, m-commerce)
- * Customer Service
- * Home Banking (interactive TV)
- * ATM
- * POS
- * Branch

Fig. 2